



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,658	08/28/2003	Atsushi Sakamoto	1232-5110	1909
27123	7590	06/22/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			TRAN, LY T	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/652,658

Applicant(s)

SAKAMOTO ET AL.

Examiner

Ly T. TRAN

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8-11 is/are rejected.
- 7) ☒ Claim(s) 6,7 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/8/04</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "capping opening help means" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipate by Sugimoto et al (USPN 5,670,997).

With respect to claim 1, Sugimoto discloses an ink jet printing apparatus comprising:

- A carriage (Fig.1: element 2) mounted with a printing head (element 1) for ejecting ink and for scanning the printing head in a main scanning direction
- Suction means for sucking ink from the printing head (Column 13: line 59-63);
- Capping means (Column 10: line 26-29) for performing a cap closing operation in which an ejection port surface of the printing head is covered with a cap member when the suction means sucks ink from the printing head and performing a cap opening operation in which the cap member is separated from the ejection port surface after suction by the suction means; and

- Cap opening help means (Column 15: line 45-54) performing a cap opening help operation that facilitates the cap opening operation, when the capping means performs the cap opening operation

With respect to claim 3, Sugimoto discloses the cap opening and cap closing operations by the capping means are performed by means of moving of the carriage in the main scanning direction (Column 15: line 22-29).

With respect to claims 8 and 11, since Sugimoto discloses the cap opening help means, the manner of operating the device does not differentiate the apparatus claim from the prior art.

With respect to claims 9 and 11, Sugimoto discloses the cap opening help means includes means for performing a micro-reciprocating motion of the carriage in the main scanning direction because when the lever 32 in figure 10a and figure 10b moved up or down in direction A, the carriage should have a micro-reciprocating motion.

With respect to claims 10 and 11, Sugimoto discloses the cap opening help means includes means for causing predetermined positive pressure inside the cap member for a predetermined time (since Sugimoto teaches cap opening help means includes means for performing cap operation, it should cause a predetermined pressure inside the cap for a predetermined time), furthermore the manner of operating the device does not differentiate the apparatus claim from the prior art.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto (USPN 5,670,997) in view of Ito et al. (USPN 5,075,609).

Sugimoto fails to detect the moving distance of the carriage by an encoder.

Ito teaches detect the moving distance of the carriage by an encoder (Abstract).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to detect the moving distance of the carriage by an encoder as taught by Ito. The motivation of doing so is highly accurate printing position control can be accomplished.

***Allowable Subject Matter***

4. Claims 6, 7 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 6 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage.

Art Unit: 2853

Claim 7 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage is more than a predetermined value and the values more than the predetermined values continues for a predetermined time.

Claim 12 is allowable over prior art of record because at least prior art have not been found to anticipate or teach the cap opening operating detecting means includes means for detecting a value per unit of time of the current flowing in a power source for driving the carriage means for detecting a value per unit of time of the current flowing in a power source for driving the carriage is more than a predetermined value and the values more than the predetermined values continues for a predetermined time.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ly T. TRAN whose telephone number is 571-272-2155. The examiner can normally be reached on M-F (7:30am-5pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2853

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LT

June 21, 2005



Stephen D. Meler  
Primary Examiner